Serious Games – Theory and Reality

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Browser, Mobile, Social & Casual Games today are driving the digital gaming markets globally

Combining newer estimations we believe that in total 1,2 up to 1,5 bn. people are playing digital games worldwide. The average age of the players is today 30+. Mostly people play online like in China (250 million online gamers) or South Korea.

Even if core gamers (which are much younger than the average gamer) are spending more money in the traditional games market then anyone else (about 2/3 of the 60 billion US-$ market), the law of large numbers leads to a new market model that we call the third wave of digital gaming. The first wave is the core console and pc market for boxed products. The second wave were the subscription based online games like world of warcraft. The third wave are browser and social games combined with the free to play business model.

This third wave will transform the markets fundamentally. Many experts estimate that in 2013 (or earlier) the online markets will pass the traditional gaming markets.
A market segmentation for 2011 based on player type and player investments

Old core markets
- Core Console Games
- Core PC Games
- MMOG/MMORPG Subscription
- Browser Games
- Mobile Games

New emerging markets
- High Investment (Money/Time)
- Online Gambling
- Self Improvement
- Social Network Games
- Skill based Games
- Mobile Games
- Adgames

Core Standard Casual

High Investment (Money/Time)
Agenda

- **Theoretical Perspective: Serious Games – Our two step approach**

- Politworld and Urban Life 2060

- Outlook and discussion
Genres and their development

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Source: extended and modified after Egenfeldt-Nielsen et al. 2008: 52
Step I: Form one definition to a segmentation

“A thorough review of the history of video games, reveals that video games have contained a lot of very positive information and ideas. When I analyzed games from a historical perspective, I found more than fifty different experiential and inspirational aspects of video games, which included experience with very practical skills in areas like finances, basic economics, running a business, interior design, landscaping, city planning, and investment. I noted several skills like leadership, cooperative work/play, and relationship building, as well as responsibility to others. Concepts like fairness and justice, patience and restraint are common in many games, as is the idea that actions have consequences. To a lesser degree, history, geography, and other traditional educational subjects were thought, though more experientially than factually. Finally, conceptual skills like patterns recognition, 3D navigation, programming skills, mapping and visualization, creativity, and personal accomplishment can be enhanced by playing video games.” (De Maria: 2007, 119)

We believe:
There is no “one size fits all” definition for serious games!
Definitions

- **Serious game-applications**, which are the kind of games developed only for one special purpose. The aim of these serious game-applications is mostly education in a specific content area (such as games for health, military training, social change).

- **Serious game-technologies**, which can be either technologies developed for other games and reused in different action fields or existing gaming technologies that are altered to fit into new tasks (such as architecture, hardware or engines).

- **Serious game-content**, which means the usage of narrative structures in games as a medium to transport complex messages. This is also about the mixture of implicit and explicit content (such as political games, social change games etc.).

- **Serious game-simulations**, which are the best way to use existing game mechanics to explore new fields. These simulations are often what people out of the field associate with the term serious games (such as economic simulations, flight simulations, military simulation).
Stepp II Spectrum

- Learning
  - eLearning Web-based
- Training
  - Science & Engineering
- Retraining
  - Wellness / Self Improvement
- Edutainment
  - Society Else?
- Fitness
  - Problemsolving
- Recreation
  - Innovation
Agenda

• **Serious Games – Our two step approach**

• **Reality Check: Politworld and Urban Life 2060**

• **Outlook and discussion**
The 80s and Today: Re-Invention Times

**Basic Idea:**
- Server-based Usage
- Convergence
- Two Screens
EDU or better Edu shooter: A FPS-based serious game

• There is an issue „Violent Games“
• Is the „Game Mechanic Shooting“ a real problem?
• There was something about Lego and pluggin it together.
• ... the first Serious Game „Re-Invention“ we made!
The classroom game Politworld
A Serious Situation

WHY? And the task!

- Think about Kids aged 13-15!
- Think about your own time at school!
- What do you know today about political systems in-depth?

The reason why?
- Think about how sexy this chart seems to be?

Source: http://www.wasatchwatcher.com/political-systems.html, 3.3.2011
About the Game Politworld (1)

• Politworld is a turn-based simulation.
• Every student chooses his own country.
• They also have to choose a basic political system (democracy or military dictatorship).
• They can choose to form alliances.
• Students can barter resources from the start.
• Executing political actions and measures is possible from the start.
About the Game Politworld (2)

• Students first play a tutorial and one game turn.
• Then there is a first two-stage discussion round, with the teacher at first acting as instructor, later as moderator.
• In the discussion round the elected continental presidents have to work out a general agreement about a serious issue.
• Finally, before round 2 all players pass a law and sign a contract to become integrated into the actual game.
• This contract influences and changes gameplay. So every classroom will have its own gaming experience.
• In round two the players will get additional tasks.
Politworld: Headquarters - Artworks
Politworld: Headquarters in the game
Politworld: Newscast concept art

ABSURDISTAN DECLARES WAR! ...AGAIN • QUAGHOG: STOCK BROKERS MASS SUICIDE • RICKY MARTIN: COMEBACK!
And how this looks within the game
The new game Urban Life 2060
Urban Life I: Game Principles

- Urban Life is a story based MMOG
- Players are going to settle in one city and have to make decisions between opportunistic or corporately actions
- Therefore the players have to spend their resources earned in the game – in other words: This game is about a voluntary tax system where people have to choose between egoistic economic prosperity or common city development.
- The storys are based on research like a city in the future might be. Many of the quests are telling serious stories or raising serious questions about future life.
- Urban Life wasn’t initiated as a serious game, but the focal idea was always about the question how much are people willing to give freely.
Urban Life II: Realization

- Urban Life is an MMOG where up to 10,000 players can live together in „one city“.
- Urban Life is a free-top-play browser based game, developed with Unity 3D.
- Urban Life was created by up to 80 Students during a period of about 9 months (beta stadium).
- Urban Life was a cooperation between the University of Paderborn (Gameslab / Rabbyte) and the world’s leading browser game company bigpoint.
- The potential target group are players between 25 and 50 not very experienced in playing MMOGs.
- Even if Urban Life is a University Project, we’ve integrated mechanisms to potentially monetize the game.
- Accumulated personal wealth will be presented in the appartment.
Urban Life 2060
Tutorial
Appartment
A few more impressions

A typical quest
Agenda

• Serious Games – Our two step approach

• Politworld and Urban Life 2060

• Money and Manpower: Outlook and discussion
Outlook and discussion

• We believe that **new two-step framework** we have presented is a functional beginning for a model that combines aspects of a taxonomy and a segmentation via markets and serious games components that might explain more accurately what we think serious games are.

• From the practical side, our project development reality check showed us that **even if you are willing to create a good serious game you need a lot of money or at least manpower**. In comparison to e-learning or web-based learning tools, the development of full-featured serious game is much more complex and requires more time. Such games need a higher level of production so that the majority of them could be commercially successful. Additionally, if games like Urban Life 2060 want to succeed they need to have monetization options beyond an upfront purchase price for the game. If there will be none of these, there will be no rich content serious games in the market because the developer and/or publisher will not create them.

• Personal purpose serious games developers could try to enter the free-to-play market. Most of these type of commercial games are launched by the publishers without a full feature set. They gauge the market adoption of a given game during its first few weeks and only fully develop the game if the initial launch meets its financial numbers in the first few weeks. Professional serious games only have a chance if they have been produced to order by a client funding the development or if they have strong support from the government especially in the case of educational games.
Thank you for your attention!

- Lastly, serious games can have a bright and shiny future as long as the political and educational systems that express interest in them go beyond lip service to accept games as medium for teaching and invest in the future of modern educational systems.
Serious coffee break!

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